

REMARKS

Status of the Claims

In the Office Action mailed February 20, 2004, claims 1-29 were noted as pending in the application. All claims stand rejected.

A. Rejection of Claims 13 and 22 under 35 U.S.C. §112.

Claim 13 claims “. . . verifying the sending device can communicate with the receiving device through layer-2.” Examiner asserts that this conflicts with the independent claim from which it depends. Applicant traverses this assertion. At page 7, lines 5-11, the specification describes using the IP address of a intended recipient to determine whether the intended recipient and sending device are capable of communicating using layer-2. Thus, communication occurs without layer-2 communication as claimed in claim 12. However, as described in the specification, if it is determined that the sending and receiving devices can communicate with one another directly using layer-2, data may be sent from the intended recipient directly to the initial requesting device using layer-2, as claimed in claim 13. Thus, claims 23 and 13 are consistent with the specification. The claimed method of claim 12 enables communication between network devices where layer-3 can be used without using layer-2 communication. However, claim 12 does not preclude using layer-2. Claim 12 merely claims a method that enable communication without having to use layer-2, but does not claim that layer-2 cannot be used. The aspect claimed in claim 13 permits communication using layer-2 between devices that are permitted to divulge their MAC addresses, but the method that performs this communication also facilitates communication between devices “without layer-2 communication,” as claimed in claim 12. Similarly, claim 22 is consistent with claim 21. Accordingly, amendment to claims 13 and 22 is not required for these claims to be unambiguous and consistent with independent claims 12 and 21 respectively, from which they depend. Withdrawal of the rejection is respectively requested.

B. Rejection of Claims 1-9, 11-12, 14-19 and 23-28 under 35 U.S.C. §102(e).

On page 2 of the Office Action, claims 1-9, 11-12, 14-19 and 23-28 were rejected under 35 U.S.C. § 102 as being anticipated by U.S. Patent Number 6,657,974 to Britton, *et. al.*, (“Britton”) The reasons that the claims patentably distinguish over the reference are addressed below.

C. Rejection of Claims 1, 12 and 21 under 35 U.S.C. § 103(a).

On page 4 of the Office Action, claims 10, 20 and 29 were rejected under 35 U.S.C. § 103 as being obvious over Britton in view of U.S. Patent Number 6,295,276 to Datta, *et. al.*, (“Datta”). The reasons that the claims patentably distinguish over the reference are addressed below.

D. Summary of Cited References

Before addressing the Examiner's rejections, a brief summary of the cited references is provided.

Britton

Britton relates to a method and apparatus for providing one ARP reply with a consistent MAC address for any ARP request where a host uses multiple adapters. Col. 2, lines 52-57. Regarding a first embodiment, when an adaptor becomes active at a host, the network associated with adaptors can be determined by sending an ARP advertisement over an adaptor. This advertisement maps, or associates, an IP address with a corresponding MAC address. All host that are on the same network as the adaptor will receive the ARP advertisement. Col. 6, lines 7-17. "Sometimes a host sends an ARP request into a network to request the host owning an adaptorX with IP address IP-X to reply with its MAC address MAC-X." Col. 6, lines 54-56. In summary, the MAC address of a replying device is provided to a requesting device.

Datta

Datta relates to leveraging multiple routers for increasing the bandwidth over using one router. Col. 6, lines 7-11. A controller is inserted into a LAN and modifies operation of the LAN in such a way such that data packets are multiplexed over two or more routers, hereby providing additional bandwidth to a LAN-WAN connection. *Id.* Using an ARP request, the controller makes a determination of which router to send information to based on load balancing algorithms. Col. 7, lines 42-54. The controller modifies the ARP reply by inserting the physical address of the selected router. *Id.* A destination controller may provide either an IP or physical address to a source controller. Col. 8, lines 22-26.

E. The Claims are not Anticipated by Britton.

Claim 1 claims a system comprising, among other things, a first network device interconnected between a sending device and a forwarding agent, the first network device comprising a [MAC] address of a forwarding agent, wherein the first network device interprets a request from the sending device and sends a reply to the sending device comprising the MAC address of the forwarding agent to the sending device. The forwarding agent may include a router 320, as shown in FIG. 3. Page 7, line 1. The P2ARP network device 124, shown on FIG. 1, contains and processes P2ARP function 147, which determines whether a sending device and a receiving device can communication via layer 2 communication (establishing a connection based on MAC addresses of the communicating devices). Page 6, lines 4-9. Router 320 determines whether the communicating devices can communicate using layer-2 based on the IP address of the intended receiving device. Page 6, lines 3-5. Device 322, which corresponds to P2ARP network device 124 in FIG. 1, intercepts a request from a sending device 326. The request may be requesting that router 320 establish a connection with device 328 based on the MAC address of device 328. To prevent spoofing and other techniques that may surreptitiously co-opt control of the receiving device if its MAC address becomes known to other devices on the network, device 322 determines whether knowledge by other network devices of the intended recipient device's MAC address is permitted. If not, the MAC address of the router 320 is forwarded to the sending device and the data packets intended for the recipient device are forwarded to the router based on its MAC address. The router then forwards the data packets to the intended recipient

device based on its IP address (layer-3 communication), rather than its MAC address (layer-2 communication). Page 7, lines 1-15.

A system comprising a first network device interconnected between a sending device and an intended recipient device, which functions as claimed and described in the specification, is not disclosed in Britton. Indeed, when an adaptor comes on line in Britton, the MAC address of that adaptor is mapped to its IP address, and the mapping is broadcast to all devices on the network. Thus, notwithstanding that the invention of Britton, and the disclosure and claims of the present application are directed to different networking functions and operations, the claimed system of claim 1, including the first network device, an embodiment of which is depicted in FIG. 1, is not disclosed in Britton. Thus, claim 1 patentably distinguishes over the reference. Withdrawal of the rejection is respectfully requested.

Regarding claim 12, the step in the claimed method of “intercepting within a first function and address resolution protocol, . . . and replying from the first function to the sending device an address resolution protocol reply comprising a forwarding agent’s [MAC] address,” is not disclosed in Britton. Similar analysis applies to the similar element of claim 21. Therefore, claims 12 and 21 patentably distinguish over the reference and withdrawal of the rejection is respectfully requested.

Dependent claims 2-9 and 11; 14-19 and 23-28 depend from independent claims 1, 12 and 21 respectively. Therefore, since they include all of the elements of the claims from which they depend, and because the independent claims patentably distinguish over the reference, the dependent claims also patentably distinguish over the reference and withdrawal of the rejection is respectfully requested.

F. The Claims are not Obvious over the Cited References

Applicant respectfully submits that the subject matter of the claims patentably distinguish over the cited references. Under MPEP § 2142, for an examiner to establish a *prima facie* case of obviousness, “three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on Applicant’s disclosure.” If any of these three criteria are not met, the Examiner has not met the burden of establishing a *prima facie* case of obviousness, and the rejection should be withdrawn.

Furthermore, each dependent claim includes all of the limitations of the independent claim from which it depends. If an independent claim is non-obvious under 35 U.S.C. § 103, then any claim depending therefrom is non-obvious. MPEP §2143.03, citing In re Fine, 837 F.2d 1071 (Fed. Cir. 1988). Applicant respectfully submits that the burden of establishing a *prima facie* case of obviousness has not been met.

G. Claims 10, 20 and 29 are not obvious over the cited references

The claims analyzed above include claims 1, 12 and 21, the independent claims in the application. As discussed above, these independent claims patentably distinguish over the reference Britton. These independent claims are not rejected as obvious at section 6 on page 4 of the Office Action. Accordingly, under MPEP §§2142 §2143.03, these dependent claims also are non-obvious over the references and withdrawal of the rejection is respectfully requested.

SUMMARY

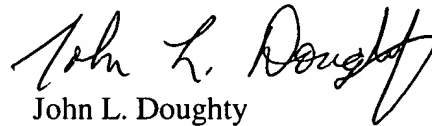
For all the reasons advanced above, Applicant respectfully submits that the application is in condition for allowance and that action is earnestly solicited.

If the Examiner believes that there are any issues that can be resolved by a telephone conference, or that there are any informalities that can be corrected by an Examiner's amendment please contact the undersigned at the mailing address, telephone, facsimile number, or e-mail address indicated below.

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